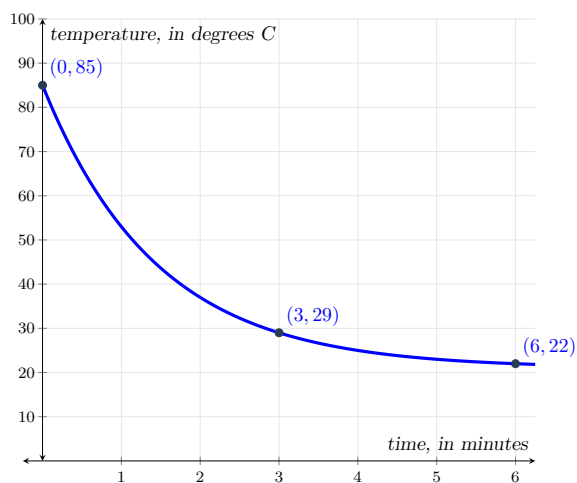


Exercise 1 The graph below shows the temperature T , in degrees Celsius, of an object at time t , in minutes.



- (a) Based on the graph above, is this object heating up or cooling down?

Multiple Choice:

- (i) Heating Up
- (ii) Cooling Down ✓

- (b) What is the rate of change in this data between the point corresponding to $t = 0$ minutes, and the point corresponding to $t = 3$ minutes? $-56/3$ degrees Celsius/minute.

Hint: Recall that the rate of change between two data points is given by $\frac{\Delta T}{\Delta t}$.

- (c) What is the rate of change in this data between the point corresponding to $t = 3$ minutes, and the point corresponding to $t = 6$ minutes? $-7/3$ degrees Celsius/minute.

- (d) Based on the your answers above, does this data always have the same rate of change?

Multiple Choice:

- (i) Yes
- (ii) No ✓